

## CALIFORNIA FARMING.

## Our Washington Correspondent Writes Again of Agriculture in the Far West—A Peculiar Case.

Editor of The Progressive Farmer:

Southern California undoubtedly possesses the most highly developed irrigation in the United States. Water there has been difficult to get and is expensive, consequently the greatest value has been put upon it, and every drop is made to count. It is equally rich in natural resources, and has, besides, in the Sacramento River a limitless water supply to irrigate millions of acres. Yet, because the San Joaquin has rainfall, no irrigation has been developed, and the lands are planted to vast fields of wheat, resulting in an entire lack of settlement of the valley, whereas the region around Los Angeles, having practically no rainfall, has become thickly settled with a prosperous, energetic class of people, who are making it one of the most wonderful regions of the United States.

Los Angeles is simply an instance of where adverse conditions have actually forced development. This is often possible where the active factor of development is the pushing, aggressive American. Under the old Spanish regime, Southern California would be to-day where she was at the time of the Mexican conquest.

And this good, coming out of supposed evil or misfortune, can be seen in a still different phase in this same locality. The last five years have been very dry ones. Many water sources have failed. I do not remember the figures, but I think what was considered in earlier years an average annual rainfall for Los Angeles was 15 or 16 inches. The last few years it has ranged 7, 8 or 9 inches; so that ditches and canals have largely failed. About the third year of the drouth the fruit-growers said: "If we do not get rain the country is lost." They did not get it, and yet this fact has proven the greatest blessing to their industries. Giving up in despair the idea of getting enough water out of the mountains, they commenced boring and pumping tests to try and save their orchards. The result has been a marvelous underground water development, everlasting in its supply and easily controlled. Twelve thousand acres of oranges at Riverside are irrigated from underground waters. Water was found in many places where it had been said there could be no water.

It seems strange that just south of Southern California, where water is so precious—in fact, still in Southern California—a great river runs to waste which would irrigate ten million acres—the Nile of America—the Colorado River. But the diversion of its waters is a great engineering problem, and but little has been done thus far to utilize them. Eventually they will doubtless be all spread out upon the land and produce enormous crops; for we are just at the threshold of irrigation in America.

The orange orchards of Southern California begin to bear, if well

cared for, at four years from transplanting. When they are twelve years old they may bear 300 boxes of oranges to the acre, which will likely net the grower \$300; and if his orchard is well located and not subject to frost, he will probably hold it at \$2,000 an acre. An enormous figure, yet warranted by the returns. But, on the other hand, many acres, through mismanagement and poor location, barely return expenses.

The soil of Southern California is rich, and this fact, it seems to me, is not proving an unmixed blessing to the people. They have not apparently given exhaustive study to the fertilizing question. Many of the older orchards are not producing as vigorously as the smaller trees where the soil has not been depleted. The growers do not seem to expect so much of an old tree.

As a matter of fact, age should be no bar to an increasing yield until the orange attains its full growth and the foliage interlocks in the rows. In Florida the growers apparently understand feeding the trees better, and again for the same reason that has in general built up Southern California. The Florida orange-grower has no soil, so to speak. He plants his trees in almost pure sand, and so has had to make a close study of supplying them with food from the start. In a crop so intensive and valuable as the orange or lemon, the question of the cost of fertilizer does not really enter. Half a ton to the acre is a large application in California. A ton to the acre is not unusual in Florida.

Irrigation begets good cultivation. The old way was to flood on the water; after it had sunk into the ground, run the cultivator over lightly, and then in a short time irrigate again. This left the roots at the surface and necessitated the use of much water. Now better results are obtained by three, four or five good soakings, followed by a deep and continual stirring of the soil. The orchards of Southern California are as clean of weeds and as smooth as a kitchen garden in spring-time, ready for planting.

By the way, this irrigation business occasionally develops features that sound strange enough to Eastern farmers. Take this paragraph, for example, from the Chicago Rural Voice:

"The United States Supreme Court has overruled the demurrer of the State of Colorado to the bill brought by the State of Kansas to test the right of Colorado to use so large a quantity of the water from the Arkansas River for irrigation purposes as to practically divert its entire supply and make irrigation impossible along its course in Kansas. This is an interesting case; it brings up the same principles involved in the case against the United States by Mexico relative to our rights in the waters of the Rio Grande, and is one of large interest as between many States of the Union where similar conditions exist. Colorado takes the

broad ground that Kansas has no rights or interest in the stream, and that the appropriations of water by Colorado are in accordance with the doctrine respecting the use of water of a natural stream for beneficial purposes which has prevailed always in the arid regions of this country. Kansas will contend that notwithstanding the fact that the Arkansas takes its head among the mountains of Colorado, all the country through which that river passes has proportionate claims to its waters. The overruling of the demurrer indicates that the court purposes to hear the Kansas side of the case, and it is to be hoped that the final decision will deal with the broad principles involved and establish a just basis for the use of water from interstate streams throughout the irrigated West."

GUY E. MITCHELL.

Washington, D. C.

## North Carolina Farming Notes.

Monroe Enquirer: From samples sent to this office we judge that the velvet-bean crop in this county is fine. A number of farmers in this county planted velvet-beans as an experimental crop last spring. The vines are fine and are full of beans, but the beans will not mature in this climate. Even in this exceptionally late fall the indications are that frost will kill the beans.

Washington Gazette: A farmer tells us he is now engaged in picking a crop of cotton that would not have matured but for the mild weather that has been prevalent this month, and while he was in Norfolk last week he was informed the truckers, if no frost came within ten days, would be shipping strawberries and a second crop of beans.

Littleton Reporter: Reports from tobacco-growers are discouraging. They report decline in prices on all the lower grades of tobacco. The high prices prevailing prior to the consolidation of the two big tobacco companies are no more. This is as we expected. Let our farmers prepare a small crop of tobacco for the next season and greatly reduce the supply, and thereby enhance its value.

Charlotte Observer: Col. John S. Cunningham, of Person, sees danger in the present high prices of tobacco—first, that it may cause the raisers to rush their tobacco on the market in such quantities as to depress the prices; second, it may cause the too large abandonment of food crops and too great concentration upon tobacco, and this, with a bad season, would result in disaster. There is no doubt that these points are well taken. The tobacco farmers of this State, especially of the east, have made a great deal of money in the last year, and under the circumstances the position for "plunging" will be well-nigh irresistible.

Raleigh Cor. Charlotte Observer: The Agricultural Department is preparing a bulletin on Tree Fruits. It

is to be the work of W. F. Massey, T. K. Bruner and Franklin Sherman, and will cover the best varieties, spraying, treatment, etc. Much will be devoted to the apple. There is remarkable interest in this fruit since the notably fine apple show at the State Fair. Inquiries as to apples and apple-growing lands are coming in all the way from Minnesota. There is no limit to the possibilities of this business in the mountain counties. Moses Cone, who has 40,000 trees in Watauga, will set out thousands more, among them 500 Grimes's Golden.

Colonel Olds: Commissioner of Agriculture Patterson returned today, having held several Farmers' Institutes. At two of these the attendance was good. The Commissioner says that the fall sales of fertilizer-tax tags are not so large as they were last autumn, but that a lot of tags may have been carried over by the fertilizer manufacturers which were not used for the spring trade.—The North Carolina crop report for November, issued by the State Agricultural Department, gives the following figures: Yield of cotton compared with average 86 per cent: compared with last year, 102. Yield of tobacco compared with average 97 per cent: compared with last year, 100. The following are percentages of the yield as compared with average: Corn, 90; peanuts, 91; sweet potatoes, 98; peas, 85.

## Alfalfa for Dairy Cows.

Editor of The Progressive Farmer:

Hoard's Dairyman has completed an investigation showing the economy of feeding alfalfa to cows for milk production. The returns from 40 dairy herds which were fed alfalfa as a part of their ration are compared with the returns from 40 dairy herds which received no alfalfa. The first-named class comprised a total of 495 cows, and the second-named class 357 cows. All of these cows are in Onondaga County, New York, not far from the city of Syracuse.

The returns show that the alfalfa-fed cows produced a net profit of \$10.05 per year, while the cows which received no alfalfa produced a net profit of only \$1.53 per year, or a difference in favor of the alfalfa-fed cows of \$8.52 per year.

North Carolina readers are not as much interested in dairying as the New York farmers are, but there is a lesson in this test for every feeder of live stock. New York farmers have for years been paying a mint of money for bran, gluten feeds and cotton-seed meal or the so-called "protein" feeds. This test shows that money can be saved by growing at least a part of the protein at home. The same thing can be done in this State by growing cow-peas and perhaps alfalfa, too, for both of these crops contain large quantities of protein.

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